

What is claimed is:

1. A method for alternately expressing a color-memorizing photochromic function in a toy element, which comprises arranging (1) a color-changing means under a contacted  
5 or non-contacted condition, which contains at least one of an ultraviolet ray absorbent and a light-shading pigment capable of shading at least ultraviolet rays,

to (2) a toy element comprising a photochromic layer which maintains a coloring state by developing a color through the  
10 irradiation of ultraviolet rays or sunlight containing ultraviolet rays and changes into decolorizing state through its decolorization by the irradiation of visible light,

wherein said color-changing means changes said photochromic layer of the coloring state into decolorizing state  
15 by cutting off ultraviolet rays of sunlight and thereby effecting irradiation of visible light, and maintains the changed state, so as to express a function to memorize and maintain coloring and decolorizing states alternately.

20 2. The method for alternately expressing a color-memorizing photochromic function in a toy element according to claim 1, wherein said photochromic layer contains a diaryl ethene photochromic compound.

25 3. An alternately color-memorizing photochromic toy

comprising:

a toy element comprising a photochromic layer which contains a diaryl ethene photochromic compound, maintains a coloring state by developing a color through the irradiation of ultraviolet rays or sunlight containing ultraviolet rays and changes into decolorizing state through its decolorization by the irradiation of visible light; and

a color-changing means which contains at least one of an ultraviolet ray absorbent and a light-shading pigment capable of shading at least ultraviolet rays, changes said photochromic compound of the coloring state into decolorizing state by cutting off ultraviolet rays of sunlight and thereby effecting irradiation of visible light, and maintains the changed state,

wherein a function to memorize and maintain coloring and decolorizing states alternately is expressed by arranging said color-changing means under such a condition that it is contacted or non-contacted with said photochromic layer.

4. The alternately color-memorizing photochromic toy according to claim 3, wherein said diaryl ethene photochromic compound is included in microcapsules.

5. The alternately color-memorizing photochromic toy according to claim 3, wherein said photochromic layer is any one of a printing or coating layer, a printing image and a writing

image, which contains at least said diaryl ethene photochromic compound and a binder resin.

6. The alternately color-memorizing photochromic toy  
5 according to claim 3, wherein said photochromic layer is a compact prepared by integrally blending said diaryl ethene photochromic compound with a thermoplastic resin.

7. The alternately color-memorizing photochromic toy  
10 according to claim 3, wherein said color-changing means is a sheet-shaped compact prepared by integrally blending at least one of said ultraviolet ray absorbent and said light-shading pigment capable of shading at least ultraviolet rays with a transparent plastic.

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8. The alternately color-memorizing photochromic toy according to claim 7, wherein a rapping image is arranged inside of said sheet-shaped compact.

20 9. The alternately color-memorizing photochromic toy according to claim 3, wherein said color-changing means is any one of a printing or coating layer, a printing image and a writing image, in which at least one of said ultraviolet ray absorbent and said light-shading pigment capable of shading at least  
25 ultraviolet rays is fixed in a dissolved or dispersed state

to a binder resin.

10. The alternately color-memorizing photochromic toy according to claim 9, wherein any one of a printing or coating  
5 layer, a printing image and a writing image is directly arranged on said photochromic layer of a toy element.

11. The alternately color-memorizing photochromic toy according to claim 9, wherein any one of said printing or coating  
10 layer, said printing image and said writing image is arranged on a transparent plastic sheet.

12. The alternately color-memorizing photochromic toy according to claim 3, wherein said color-changing means is in  
15 the form of plastic or fluid material in which at least one of said ultraviolet ray absorbent and said light-shading pigment capable of shading at least ultraviolet rays is dissolved or dispersed.

20 13. The alternately color-memorizing photochromic toy according to claim 3, wherein said color-changing means is a cloth constituted from transparent fibers prepared by fixing at least one of said ultraviolet ray absorbent and said light-shading pigment capable of shading at least ultraviolet  
25 rays on the surface or by blending therewith.

14. The alternately color-memorizing photochromic toy  
according to claim 3, wherein said color-changing means is a  
visible light irradiator whose main light generation range is  
5 in the visible light.

15. The alternately color-memorizing photochromic toy  
according to claim 3, wherein said coloring state is changed  
by an ultraviolet ray irradiator which irradiates ultraviolet  
10 rays.

16. The alternately color-memorizing photochromic toy  
according to claim 3, wherein a general purpose dyestuff or  
pigment is allowed to coexist in said photochromic layer.  
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